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Art. I. *Remarks upon the Natural Order Campanula.* — By J. E. Teschemacher.

[We have been favored by our valuable correspondent with the following communication, which we have no doubt will be read with interest by the lovers of plants, as it describes not only one of the loveliest genera, but also contains remarks well calculated for the benefit of the most inexperienced cultivator. We are confident that we express the feelings of our readers when we say, that communications which so eminently combine good practice with sound theory, will always be acceptable.—*Edrs.*]

The approach of spring appears to thaw the ideas and revivify the senses of those attached to the cultivation of the soil; and the true lover of nature, discovering the first green blades of grass peeping from their brown sheaths, or watching the beautiful tints of his herbaceous plants, as they successively burst the surface of the earth, and seem to woo the warm rays of the sun, needs not to envy the feelings of the miser counting his hoard, or the king upon his throne.

The current of his ideas begins suddenly to flow in a different channel, and the beauties of his garden rise in vivid images before him, filling his mind with all the charming delights of anticipation — perfect, as they are, neither devoured in the bud by the devastating caterpillar, or nipped ere unfolded by the unseasonable northern blast — anticipation is unalloyed, reality subject to disappointment. The only quarrel I have with the gorgeous and ever-blooming plants of the greenhouse, is, that the constant enjoyment of them deadens the force of this elasticity of the heart in the early spring.

With the exception of the rose and a few other especial favorites, the Campanula tribe have always appeared to me a chief ornament both of the garden and the bouquet — and as many of the most handsome of the species are easily procured, and require but little skill and care to cultivate, I have thought that a description of some of them would not be unacceptable to your readers.

Those who take a fancy to this tribe and make a collection, will not fail to be struck with the variety of form both in the flower and foliage. Some, as in the Canterbury bell, *Campanula media*, have a large, wide and deep shaped flower; while in *C. rapunculoides* it is elegantly long, narrow, and pendent, the segments of the margin pointed and a little reflexed or bent back; in the peach-leaved, *C. persicæfolia*, the flower is broadly and roundly campanule; shallow, very showy, but not so elegant; — some, as *C. pyramidalis* and *C. media*, grow from three to five feet high, and are thus fit for the back of the flower border; while others, as *C. pumila* and *crinus*, more modestly enamel the surface with their lively colors, and are better adapted for the front of the parterre.

It is not my intention to enter into any botanical details of this tribe farther than to state that the most recent and approved arrangement of the Campanulaceæ is by the monograph of Alph. De Candolle, son of the celebrated professor De Candolle of Geneva, and this is now the generally received authority on this subject.

The name Campanula is a diminutive of the Italian Campana, a bell, the flowers of a greater part of the tribe being bell shaped; an extremely graceful form, particularly when pendent. The spikes of many are finely pyramidal and the flowers crowded, therefore elegant and shewy; they do not very readily fade, and if pains be taken to cut off the flowers as they droop, so as to prevent the seed from forming, fresh ones will succeed, and the plants may be kept in beauty during the whole summer and autumn; their colors are bright, varying from an intense purplish blue to a pure snowy white.

Foremost in the list stands the unrivalled

Campanula pyramidalis, both white and blue — commonly called in England the Chimney Campanula from its being often used to stand before the chimney in the summer, one single well grown plant being sufficient to conceal the whole space. It is certainly the most beautiful of the tribe; the stems are crowded

from the root, and the flowers so thickly studded on them that scarcely a particle of green is visible. It is not hardy enough to bear exposure during the winter, and is therefore usually grown in pots.

I cannot do better than refer the cultivator to page 423 of the 1st Vol. of the Hort. Reg. for the best method of raising fine plants; but from the care and attention required, it is more a gardener's plant, than one for the private amateur; it will however amply repay any care that may be bestowed on it.

Campanula media, the Canterbury bell — blue and white — is too generally known and admired to require many remarks in this place except that it is a biennial perfectly hardy, and complaisant enough to grow in almost any soil.

C. betonicæfolia, also hardy, flower of a purplish tint with a pale base; the foliage pleasing, and rather singular.

C. sarmatica — a beautiful variety, hardy, the bell shaped flowers droop elegantly.

C. punctata — a native of Siberia, consequently hardy, flower large, dull white, hairy and spotted inside with crimson spots; this is very beautiful to examine, but as it grows near the ground and the color is not brilliant, it does not make a great show.

C. speciosa; shewy bell flower — flowers disposed in a pyramidal raceme, each about an inch long, dark purple, probably hardy here.

C. glomerata — flowers disposed in thick heads, bluish violet; there is one variety, *C. glomerata, var. speciosa*, of which the flowers are very large and striking; this is a great favorite.

C. rapunculoides — flowers pendent in thick, elegant pyramidal spikes, hardy, very ornamental, will grow in any soil, and lasts the whole summer and autumn; these are sometimes double; but in either state, are great acquisitions in forming the bouquet.

C. persicæfolia; peach-leaved Campanula — flower as before described, large, open; the foliage narrow; plant rather slender, of an upright growth; hardy; both blue and white — the blue generally rather pale, the white pure and brilliant; this is often double, but as the inner leaves are mostly irregularly formed and not symmetrical, the change appears to me to decrease its beauty: it is however generally thought very ornamental.

C. urticæfolia; the nettle-leaved Campanula. There cannot

well be a greater contrast than this and the last described, yet both are beautiful and shewy. This has a broad foliage as the name well describes, the bell pure white, pendent, deep, the segments pointed and elegant — also double sometimes, but it is more symmetrical, like one bell fitted into another. This plant grows very neatly, the stems rising from a bed of fine green foliage.

C. Loreyi; Lorey's campanula — annual, a very handsome species, of a slender habit; large, brilliant deep purple or white flowers with a purplish tinge, much expanded. This being of a dwarfish growth, would be, like C. speculum, admirably adapted for the border of the flower bed. I believe this has not yet been grown here, but is well worthy the honor. The seed has been imported according to the seedsmen's lists, and we may therefore expect to see it in the Exhibition of the Horticultural Society this year.

C. trachelium and *C. latifolia* are very shewy, the stems many flowered and quite hardy.

C. erinus — an elegant little annual growing near the ground.

C. pumila; dwarf Campanula — white and blue; exceedingly ornamental, particularly for rock-work, its elegant small bells literally covering the ground.

C. speculum now *specularia speculum;* according to De Candolle the well known Venus' looking glass — a pretty dwarf annual, which has long retained its rank for beauty amongst the flowers of the garden, and is to be had at every seed store.

There are about five species indigenous in the United States, but probably only three hardy enough for the northern sections.

C. aparinoides, C. rotundifolia, and *C. flexuosa* — these, though by no means devoid of beauty, would perhaps not be admitted into the garden; yet are admirably adapted to adorn some wild nook or dell, whose owner might find delight in collecting together the most shewy plants of his native country.

Including those which used to be called Campanula, but are known as *Wahlenbergia, Specularia, Platycodon,* &c. &c., there are about two hundred and fifty varieties enumerated, besides several lately imported whose names have escaped my memory, which are extremely fine. Many are of course at present unattainable, and others not sufficiently hardy to bear this climate; but I think a garden without several of this tribe is very deficient in one of the most cheerful and lively of Flora's treasures.

Art II.—*On forcing Roses, &c.* By J. R. Willis.

I pot the plants the latter part of August in the compost and same sized pots I recommended in Vol. ii, page 3 of this work. Having but one plant stove, which is about 40 feet long by 15 feet wide, I take a common cucumber frame, putting some rotten tan into it, in which I plunge the pots, (but I should have named, that before I put them into the frame, they are pruned back to two or three eyes,) I then put a strong lining of hot dung, as recommended by Mr Wood, in Vol. ii; and put on the lights directly, having some very thick reed mats made for the purpose, I cover the lights with them; they remain covered in this manner about a fortnight when the buds will all have broken. I take the mats off and let them have all the light I can so as to bring them to their color, which they will attain in a few days. I then remove them to the coldest end of the plant stove, which I keep now at 75 or 80 degrees; I keep them to this situation about a week, when I remove them on a trellis to the front of the house, towards the end where the heat first enters, where I keep them moderately moist at the roots, and occasionally syringe the tops. It is almost needless to add, that the time for putting them into the frame can only be governed by the time they are required to be in bloom, which I find to be about six or seven weeks from the time of putting them in the frame. In answer to the question, "Whether it is possible to have fine forced Roses late in December and January?" I reply, that I have forced them so as to have them in bloom at Christmas, but the flowers were never so fine, neither do I find them to bloom so freely as those which come in flower in February and March; in fact I have had them in February and March little inferior to those in the open air. With respect to whether "They will bear removing to a conservatory after the blossoms are produced, &c.?" I answer, they will remain in flower much longer than if kept in the stove, but I find that the buds that were just formed when they were taken from the stove will turn yellow and drop off; they are not so liable to fall when kept in a warm room in the house; I have had them in the house for more than a week, and then removed them back to the plant stove, and opened the buds already formed, but they certainly feel a check, as they were not so fine as

the first. In answer to the question concerning "Moss and Province Roses?" They both force remarkably well with me, and produce a great number of flowers; the only difference I show them in treatment from the others, is, they are syringed rather oftener than the other sorts. The Roses I principally force, are those here named, they may not be considered the best by some, as I am aware that the different growers have their fancy sorts for the purpose of Moss crimson, Moss scarlet, Province, Crimson perpetual, Gloire de jardens, Lee's perpetual blush, Yorkshire province, Indica Ochroleuca Noisette, Smith's New Yellow Noisette, Charles 10th—These are the sorts I most admire for the purpose of forcing, not forgetting the one recommended by Mr. Wood, viz., Rose du Roi. With regard to "The height the Dog Rose stock should be, to show the flowers to advantage?" I should say, in answer, that the height in some measure depends on a person's own fancy, but, however, my opinion is, the dwarfer it is the better.

The Persian Lilac should be taken up or repotted as soon as the leaves are off, and potted in a sandy loam, in pots sufficiently large to contain their roots when potted; put them in some convenient and sheltered place, until the latter part of January, then put them in the stove, and keep them moderately moist. Hydrangea hortensis may be forced just in the same manner.

The greatest beauties we can add to a conservatory in spring, are, in my opinion, Rhododendrons, Azaleas, and Kalmias. Those I force are Rhododendon ponticum, Do. Smithii, Do. Cunninghamii, Do. arboreum, Do. Catawbience. Kalmia latifolia. Azalea Indica alba, Do. phœnicea, Do. Smithii, Do. pink, Do. blush, Do. white, Do yellow. These should be carefully taken up with good balls, disturbing the roots as little as possible, and put them in pots large enough to contain the balls. The time I pot them is in November — I do not recommend their being brought into the forcing-house until after Christmas, when they will begin to push directly; the only treatment I use, is keeping them moist and syringing the buds. — *Floricultural Cabinet.*

Dec. 6th, 1836.

Art. III.—*Impregnation of Plants.*

The January number of Professor Silliman's Journal — a work which deserves the support of all interested in the higher departments of the Natural Sciences — in addition to a great variety of other valuable papers, contains one by Dr Gray, of New York, being in part a translation of the celebrated Corda's researches on the impregnation of plants. As the subject is one of interest, we have thought that a condensation of the paper, adapted to the general reader, might prove acceptable to at least some of the readers of the Farmer.

"*Omne ex ovo*, or everything from an egg," was the exclamation of an old philosopher, in regard to the animal creation, and later investigations show that it is scarcely less applicable to the vegetable one. The fertilizing properties of the farina or pollen of plants has long been known, but the manner in which this effect was performed, as was to be expected where the operation was conducted in the silence and mystery of nature, led to a great variety of speculations. Every farmer knew that the yellow dust which fell in such quantities from the corn blossoms upon the silken tassels of the ear was necessary to the formation of the kernel, but few were able to explain the cause of this necessity or the mode in which the plant was rendered fruitful. Every housewife has, during the summer months, seen her reservoirs or cisterns of rain water covered with a yellow powder, which by most is considered sulphur, as it appears most plentifully during thunder gusts accompanied by high winds. The peculiar odor which belongs to this substance when burning, may have assisted in originating the error with regard to the origin of this dust, which is the pollen of the forest trees, as any one may be convinced by walking in the woods when this fecundating dust is falling. This dust may be easily seen and collected for observation on the blossoms of the different varieties of the melon, pumpkin, and cucumber.

Pollen, when examined by a moderate magnifying power, is seen to consist of a multitude of grains of some regular form which is uniform in the same species, but often widely different in different kinds of plants. These grains are composed of two coats, of which the exterior is thick and nearly elastic, while the inner is exceedingly delicate and highly extensible. The cavity is filled with a

fluid which, under a powerful lens, appears slightly turbid, on account of a vast number of minute granules which float in it. A magnifying power of three hundred reveals the existence of two kinds of granules in the fluid of the pollen grains. The first is large and few in number, and are from the 4000th to the 5000th of an inch in diameter. The smaller particles, or *molecules*, as they are termed by Brown, who here seems to have led the way in the discovery, are from the 15,000th to the 30,000th of an inch in diameter. The microscope shows a motion of these particles in the fluid, movements not confined to a mere change of place, but a change of form in the particle itself; and Brown asserts that he was "convinced from repeated observations that they are produced neither by evaporation nor currents in the fluid, but that they pertain to the particles themselves."

But whatever may be the nature of this fluid or the granules it contains, it is evident that to the pollen the power of impregnation belongs, and three hypotheses have been advanced to account for its agency in the production of the vegetable embryo According to one view, a germ furnished by the pollen is supposed to be deposited in and nourished by the *ovule;* according to another, the germ is thought to be originally formed in the ovule itself, and is merely excited to action by an influence derived from the pollen; while according to the third the embryo is conceived to result from the union of a germ furnished by the pollen with another produced by the ovule. Recent discoveries have rendered it probable that the first supposition, though attended with some difficulties will be found nearest the truth.

It was discovered by Needham that grains of pollen, moistened or thrown upon water, burst with violence, and discharge the slightly viscous and turbid fluid contained in them. This effect was also sometimes produced when the pollen fell on the moist surface of the stigma, and hence to this fluid the immediate agency in impregnation was attributed by Linnæus and contemporary botanists, they in general supposing that the fluid was directly conveyed down the style to the ovule where the fecundating power was exerted. Whatever speculations might have been on the subject, the actual knowledge of naturalists was confined to the simple fact, that the application of the pollen to the stigma was essential to the fertilization of the ovule, all the information gained respecting the action of the pollen after it has reached the stigma being of recent date.

The very great improvements made in the microscope within the last twenty or thirty years had prepared the way for further advances in science, and the career of discovery in the impregnation of plants was opened in 1823 by Prof. Amici of Italy. In examining some grains of pollen on the stigma of the *Portulacca oleracea*, or common purslain, he observed that the grains had projected from some part of their surface an extremely slender tube, which was found to consist of the inner lining of the pollen-grain protruded through the external coat. Amici published the result of his discoveries, which immediately attracted the notice of Brougniart and Brown, the first of whom published a memoir in 1827, to which we are indebted for the earliest and most complete account of the manner in which these tubes originate and act upon the stigma. When grains of pollen fall on the stigma, they are retained either by the hairs with which this organ is often provided, or by its slightly humid and viscous surface. This moisture they slowly absorb, and after an interval varying from an hour to a day or more, the outer coat opens by one or more coats or slits, through which the highly extensible inner membrane protrudes like a hernial sac, and is slowly prolonged into a delicate tube. These tubes are so extremely attenuated that a powerful microscope is required for their examination.

The grains of pollen produced by some plants, (particularly the family of the Cucurbitacae,) are known to protrude several tubes from different points, and Amici detected as many as twenty or thirty from a single grain. One of the most singular facts shown by the investigations of Brown was, that the stigma of one plant would excite the same action in the pollen of different species, and even of plants belonging to different families. Thus Dr. Brown applied the pollen of a species of Asclepias to the stigma of an Orchideous plant, and found these tubes produced as readily as when placed in contact with the stigma of the plant from which the pollen was taken. Here was a clue to the manner in which hybrids were formed; and a plausible reason shown why the seeds of such plants when grown, did not resemble the fruit from which they were taken, but showed a disposition to revert more or less to their original type, according to a fundamental law of nature.

The tubes thus produced from the pollen when placed in contact with the stigma, penetrated its substance, not however by means of

any particular channel, but by insinuating themselves between the cellules, and along the intercellular passages which abound in the tissue of the stigma and style. M. Brougniart was able to follow them for only a moderate distance into the tissue of the style, where he imagined the tubes terminated, and opening at the extremity, discharged the fluid and floating particles of the pollen grain. Dr. Brown was more successful in tracing their course. He followed the course of the pollen tubes in several plants of *Orchidea* and *Asclepiadea* from the stigma to the placenta, and in a single instance, in an Orchideous plant, traced some vessels or tubes of an equivocal nature quite into the aperture of the ovule. Dr. Brown published an account of these discoveries in 1831, and remarks that Mr. Elliott in his Botany of South Carolina and Georgia, had observed these *cords* or *fibres* in the Ascelpias, but it is probable their origin or office was not suspected.

Such was the state of knowledge respecting the impregnation of plants, when M. Corda, a member of the Imperial Academy, commenced his observations. Dr. Brown had traced the pollen tubes to the mouth of the ovules, and M. Corda devoted himself to determine the interesting inquiry as to their farther progress and termination. As subjects of examination he selected the Coniferae or Fir tribe, in which the ovules are naked, and impregnated by immediate contact with the pollen, consequently offering great facilities for the investigation. Aided by powerful instruments, and conducting the processes with great skill and perseverance, M. Corda was able at last to trace the pollen tubes into the ovule itself, where the fluid of the pollen gave the first impulse to the formation and development of the embryo. The following is the summary of the discoveries made by M. Corda, translated from his memoir by Dr. Gray, and which in the Coniferae establish these positions :—

" 1. The pollen tube penetrates into the micropyle, (exostome,) and in Pinus the pollen grains fall directly into it ; whence the impregnation is immediate.

2. The pollen tube passes through the exostome into the endostome, passes through the cavity of the secundine, and arrives at

3. The nucule or ovule ; extends through the endostome into its cavity, and

4. By the injection of the fluid contained in the pollen grains into the bottom of the nucule gives the first *keim* (germ) to the formation of the embryo.

5. The formation and development of the embryo changes the contents of the cellular tissue of the nucule, which becomes fluid, and appears to furnish materials for the growth of the embryo.

6. The pollen tubes remain fixed (to the embryo sac) sometimes after impregnation and the commencement of the development of the embryo in the latter."

The translation of the memoir in the Journal, is accompanied by a series of engravings representing the process of impregnation, from the formation of the pollen tubes, to their entrance into the ovule and the discharge of their contents, embracing the first rudiments of the embryo.—*Genessee Farmer.*

ART. IV.—*List of New and Rare Plants.* Noticed since our last. From Foreign Works.

1. *Banksia occidentalis*, West Coast Banksia. Natural Order, Proteacea : Class, Petrandria ; Order, Monogynia. A very neat and handsome species of this very singular tribe of plants. Both foliage and flowers are pretty ; the latter are of a dark red color. *Banksia*, in honor of Sir Joseph Banks.

2. *Brassavola cordata*, Heart-lipped. Orchidacea ; Gynandria ; Monandria. There is nothing very striking in the flower of this species of Epiphyte. The petals are of a greenish-yellow color, very narrow, and about one inch long ; the labellum is half an inch long, and the same breadth, heart-shaped — white. The plant is a native of Brazil, and was imported from thence by Messrs Loddiges, in whose collection it has bloomed this year. The species is very nearly allied to B. nodosa ; the flowers are only half the size of that species, and having a heart-shaped labellum. *Brassavola*, in compliment to A. M. Brassoval, an Italian Botanist.

3. *Broughtonia coccinea*, Crimson-Flowered. Orchidaceæ ; Gynandria ; Monandria. Synonyms, Dendrobium sanguineum ; Epidendrum sanguineum ; and Broughtonia sanguinea. The flowers of this species of orchideous plants, are said to be, by Dr Hooker, the richest colored of any of this splendid family of plants. It is but rare in the collections in this country, though introduced from Jamaica, to Kew Gardens, 1793. The plant usually blooms from May to July. The

flower stem rises about ten inches high, bearing a raceme of from six to ten, very rich crimson colored flowers, continuing in bloom along time. Each flower is upwards of an inch across. It is a very desirable species, and well deserves a place in every collection. *Broughtonia*, in compliment to A. Broughton, a Botanical author.

4. *Catleya intermedia, var. pallida*, Pale-flowered. Orchidaceæ; Gynandria; Monandria. This species has bloomed in the collection of the London Horticultural Society. It is a native of Brazil. Mr Tweedie remarks of it, "This is by far the handsomest of the tribe found in the neighborhood of Buenos Ayres, and grows equally well on the sea-beaten rock, and the moss covered tree in the heart of the forest, and is to be found in bloom at all seasons. There are many varieties of it: their color pink and crimson." The present variety is very beautiful. Each flower is about three inches across. The sepals and petals are of a pinkish white color. The labellum is three lobed, the centre one feathery at the summit, and terminating with large stripes and spots of a deep crimson, finely margined with white. The following fine species have been described by Dr Lindley:—*Catleya bicolor*, a native of Brazil: sepals and petals of a tawny color; the labellum is of a bright purple and white. *C. coccinea*, native of Brazil, a very beautiful flowering species. The flowers are about three inches across, of a bright scarlet color. The flower stems rise about three inches high. This latter circumstance, connected with its brilliant colored blossoms, renders it a most striking and very desirable species. *C. Harrisonia*, a native of Brazil, producing from one to four flowers on a raceme. *C. maratima*, a native of Buenos Ayres, producing three flowers on a raceme, of a fine rose color. *C. ovata*, a native of Brazil, very much resembling C. labiata. Messrs. Loddiges possess a fragrant species with crimson flowers, which was discovered by Mr Schomburgh, in British Guiana.

5. *Cratægus glandulosa, var. macracantha*, Long spined glandular Hawthorn. Rosaceæ; Icosandria; Pentagnia. Synonyms, C. glandulosa: C. macracantha. A very fine variety of American Hawthorn, of a vigorous habit, producing a profusion of deep vermilion red berries, in clusters, and which make a very showy appearance. The foliage is of a dark green. The spines are from three to four inches long.

6. *Drosera filiformis*, Narrow-leaved Sun-dew. Droseroceæ;

Pentandria; Pentagynia; Synonym, D. tenuifolia. A native of New Jersey, where it was discovered by Mr Macnab, and by him introduced to the Edinburgh Botanic Garden. It has bloomed in the Comely Bank Nursery, and in the stove at Dr Reill's. The flower stalk rises eight or ten inches high, producing a raceme of ten or twelve flowers, rose colored, each flower about half an inch across. *Drosera*, from *drosos*, dew; referring to the clear fluid which exudes from the foliage, and appears as if covered with dew.

7. *Eutoca Wrangelina*; Baron Wrangel's Eutoca. Hydrophylleæ; Pentandria; Monogynia. This pretty flowering *annual* is a native of New California, and has very recently been introduced into this country. It has bloomed this summer, in the garden of A. B. Lambert, Esq. Boyton House, Wiltshire. The plant is of ready culture, growing freely in the open border, and blooming for several months, and has a peculiarly neat appearance. The cymose heads of pale-blue blossoms being showy; each blossom is about half an inch across. *Eutoca*, in compliment to Baron Wrangel, a Swedish Nobleman.

8. *Genista monosperma*, Single-seeded. Leguminosæ; Diadelphia; Decandria; Synonyms, Genista monosperma; Spartium monospermum. It grows wild in Sicily, Barbary, Greece, at Gibraltar close to the sea-beaten rocks, where, in February, it blooms in vast profusion. It is said to be one of the most deliciously fragrant blossomed shrubs yet discovered. The flowers are white. *Genista*, from *genu*, the knee; branches being flexible like the knee-joint.

9. *Isopagon Baxteri*, Mr Baxter's. Proteaceæ; Tetrandria; Monogynia. A native of New Holland, from whence it was sent to the Edinburgh Botanic Garden, in 1830; it has bloomed in the greenhouse at that place. The foliage is very handsome, much resembling Grevillia acanthifolia. The heads of flowers are rose-colored, with darkish tips. The plant usually grows about two feet high. It is a pretty greenhouse shrub.

10. *Malva Munroana*, Mr Munroe's Mallow. Malvaceæ; Monadelphia; Polyandria. It was introduced into this country by the late Mr Douglas, who discovered it growing on the barren plains of the Columbia, in North-West America. It will bloom freely when grown in the open air in this country, and a warm and sheltered situation be selected for it; it will then bloom from July to October. If cultivated in the greenhouse, it blooms from May. Each flower is near an inch across, of a pale rose color.

11. *Nectaroscordum siculum*, Sicilian Honey-Garlic. Liliaceæ; Hexandria; Monogynia; Synonym, Allium siculum. A hardy bulbous plant, discovered in the shady woods of Sicily; nearly thirty flowers are produced in each umbel; they are of a brown, purple, rose, and white intermixed, each flower is more than half an inch across; it is more interesting than showy. *Nectaroscordum*, from *nectar*, honey; and *skordon*, garlic.

12. *Ornithogalum conicum.* Pure-white flowered Star of Bethlehem. Asphodeleæ; Hexandria; Monogynia. A native of the Cape of Good Hope, from whence, Baron Ludwig sent bulbs to the Glasgow Botanic Garden, in 1835; the same year it bloomed in the greenhouse. The flower scape rises about one foot high, terminated by a raceme of flowers, at first conical, afterwards more elongated. The flowers are of a pure white, each near two inches across, making a showy appearance. *Ornithogalum*, from *ornis*, a bird; and *gala*, milk. The plant producing much when bruised.

13. *Phlomis Armeniaca.* Armenian Jerusalem Sage. Labiatæ; Didynamia; Angiospermia. A hardy herbaceous perennial plant, with flower stems rising about a foot high, producing numerous fine yellow blossoms, which have a neat and elegant appearance, being large showy. The plant was introduced into this country in 1834, from Armenia, where it was found growing on dry stony hills. It well deserves a place in the flower garden. It is grown in the Chelsea Botanic Garden. *Phlomis*, from *Phlogmos*, a flame; the down used for candle wicks.

14. *Prescottia colorans*, Purplish Prescottia. Orchidaceæ; Gynandria; Monandria. A stove herbaceous orchideous plant from Brazil, and imported by Messrs Loddiges. The flowers are produced in a dense manner, upon a spike of six or eight inches high, something in the way of the common Plantain — they are of a yellowish green. *Prescottia*, in compliment to John Prescott, Esq of St. Petersburgh, a celebrated Botanist.

15. *Ratibida columnaris, var. pulcherrima*, Painted-rayed. Compositæ; Syngenesia; Polygamia Frustranea; Synonyms, R. sulcata; Rudbeckia columnaris; R. Tagetes. The late Mr Drummond discovered this hardy perennial plant growing in Texas, from whence he sent seeds into this country. It is found frequently growing on the margins of rivers throughout the western regions of North America. The present showy variety has been raised by Mr Miller

of the Bristol Nursery. The flower stems rise from two to three feet high, each crowned with a splendid flower three inches across. The disk of the flower has a large portion of a fine velvety crimson and brown color; the exterior part of a fine yellow. Altogether it is a very splendid flowering, and deserves a place in every flower garden.

16. *Sisyrinchium graminifolium, var. pumilum,* Dwarf grass-leaved. Iridaceæ; Monadelphia; Triandria. This very neat and beautiful flowering plant was discovered on the mountains near Valparaiso and Conception; a plant of it has been sent to Robert Mangles, Esq. Whitmore Lodge, Summing Hill, Berkshire; in the very select collection of that gentleman it bloomed in May, 1836. The flower stems rise near six inches high, producing a profusion of flowers, each of which is near an inch across, of a pretty yellow, with a deep purple spot at the base of each petal. The plant requires protection during winter in a cool frame or greenhouse. *Sisyrinchium,* from *Sesurigchion;* an old Greek name for the Iris Sisyrinchium.

17. *Stackhousia monogynia,* Pink-tipped. Stockhousiaceæ Pentandria; Monogynia. A half hardy perennial herbaceous plant, a native of New Zealand, from whence it was sent by Mr James Backhouse to the York Nursery. The flowers are produced in a dense spike. The petals are very narrow. Each flower is nearly half an inch across. The tips of the spikes are of a bright pink, but when the blossoms expand they are pure white. *Stackhousia,* in honor of the late John Stackhouse, Esq. F. L. S., of Pendarvis, in Cornwall.

18. *Verbena Lambertia, var. Rosea.* Drummond's Pink Flowered Vervain. Verbenaceæ; Didynamia; Angiospermia. This very pretty flowering variety was discovered by the late Mr Drummond, in Texas, and is cultivated in this country under the name of V. Drummondi; the plant appears to be only a variety of V. Lamberti. The flower stem rises to half a yard high, terminating in a spike, from three to six inches long, of fragrant flowers, which are pale rose colored. When grown vigorously, it is a very handsome variety. It delights in a freshloamy soil, well enriched with manure or leaf mould. The plant is quite hardy and easily increased by slips. It may be obtained at most of the principal Nursery Establishments.

Art. V.—*Leersia oryzoides.*

Leersia oryzoides. Rough Leersia. Synon. Sandly's grass. Triandiæ Trigynia. Graminæ. This is a perennial grass, which according to Loudon, grows two feet high, and to the culture of which, much attention has of late been paid in South Carolina. Through the politeness of Dr S. Blanding, of Columbia, S. C. we have been furnished with a small quantity of seed, which we shall distribute with pleasure to our friends and patrons, who are disposed to test its qualities in our climate. Dr Blanding has furnished us with the following account of its culture.

"The seed of the Leersia oryzoides has been brought into cultivation by Mr Richard Sandly of this place. He says, the first year it has to be cultivated in drills, or it will be overrun by other grasses, but after that it will take care of itself, and he cuts three crops in a season from it. The soil which suits it, is a moist or wet one which cannot be brought into ordinary tillage. The hay from it is fine for stock, and sells in this market readily, at a good price. Your friends in the country will soon test its value. I have not seen it growing, as Mr Sandly's plantation is forty miles from Columbia."

We take this opportunity to give a brief account of the method recommended by one of the first economists in Europe for raising rare grasses. In a quarter of the garden a spot should be selected in such a situation, that it will not be exposed to mix with other kinds of grass, flowering at the same time. A bed four feet wide should be prepared by digging and manuring, in which four drills should be made lengthways of the bed; in these, the seeds should be sown. The young plants should be kept free from weeds, and the seed collected when ripened. This also gives a fair chance for observing the qualities and peculiarities of the grass. J. B.

Art. VI.—*On Myrtles.* From an Old Author.

Mons. Liger describes the Myrtle as follows: It is a shrub, that from its roots shoots forth little branches, garnished with small, green, soft, shining and pointed leaves, among which grow flowers

called *Pentapelous*, or consisting of five leaves, white, odoriferous, and in the form of a Rose. These are supported by an indented cup, which grows to be a berry as big as an olive, with a crown on the top, divided into several cells full of seeds, shaped like little kidneys.

Mr Mortimer distinguishes them into the Broad-leaved Myrtle, and the Narrow-leaved Myrtle, which are both very odoriferous shrubs; but he esteems that which affords plenty of double white blossoms in autumn, as the best: And also a sort of Myrtle with a large leaf, called the *Spanish Myrtle*, which will endure all weathers without shelter; and another sort of Myrtle that comes from Carolina and Virginia, which is the hardiest of them all; the berries of which being boiled, yield a substance of a green color, sweet or pinguid, which they there scum off, and make candles with, which do not only give a clear light, but a very agreeable scent. These will all endure hard winters with a very slender defence.

Mr Bradley distinguishes Myrtles as follows: the Large-leaved Myrtles, which are, the Nutmeg Myrtle, the Nutmeg Myrtle with variegated leaves, and that with the double blossom, the Orange-leaved Myrtle, the Portugal Myrtle, and the Spanish broad-leaved Myrtle.

The Smaller-leaved Myrtles, he distinguishes into the Bird's-nest Myrtle, the Box-leaved Myrtle, the Rosemary-leaved Myrtle, the Silver-leaved Myrtle, the Thyme-leaved Myrtle, and the Upright Myrtle.

All these, he says, are with ease propagated by cuttings, except the Orange-leaved Myrtle, and that with the double blossom, which are much better increased from layers.

The best time for laying Myrtles, he says, is in May, (but Mons. Liger says in March) which layers should be only the youngest shoots; (Mons. Liger says, the straightest branches, and those whose rind is smoothest) which, after the earth has been well stirred, must be bent into the earth, and often watered, and they will strike root, and be fit to take off from the mother plant the spring following: but Mons. Liger says, the September following.

Mr Bradley says, if you lay down shoots of a year old, they will never take root, with all the art that can be used.

As for multiplying them by cuttings, he advises also, that they be young and tender, taken from the Myrtles in July: That the leaves

must be stripped off two inches from each cutting, and set in pots of fine light earth, two inches deep, and an inch one from another, and frequently watered till they have taken root, which will be about the latter end end of August. Thus they ought to remain till the second March before they are transplanted into single pots.

Mons. Liger says, that in order to multiply them by slips cut from the roots, you must lay open the root of the Myrtle from whence you design to take a branch; cut it off as close as you can, that there may be the more little roots about it. That this is to be done either spring or fall; that the earth they are planted in, should be two thirds kitchen-garden soil well sifted, and one third hot bed mould.

Mr Mortimer says, Myrtles produced from layers are the most hardy; and those from seeds most tender: but neither he, nor Mr Bradley, nor Mons. Liger gives directions for multiplying them by seed.

He says, that as to the Carolina or Virginian Myrtle, it thrives best near the sea, and is raised either of seeds or layers. He advises in planting them, that they be not too close together, nor in too moist a place; for that these will cause them to grow mouldy. That they should be transplanted in the spring of the year, that they may have time to get root in summer, that the tree may be supplied with sap sufficient to nourish it in winter.

All agree, that they should be well-watered. Mr Bradley says, when they have once got large roots, they delight in water, and should be frequently refreshed with it. Mons. Liger says, they must be frequently watered in the summer, because the humidities rectified by the heat of the sun, help layers to take root the sooner. And Mr Mortimer says, Myrtles must be well watered summer and winter, or else they will not take root well.

Mr Bradley says, the Myrtle delights so much in moisture, that he has known a pot of it set in a shallow bason of water, on the inside of a window exposed to the South, that has shot above four times as much in one summer, as any that have stood abroad; and has continued growing at that great rate for several years, without renewing the earth in the pot, by only supplying the bason with fresh water as it wanted; but the shoots of this plant were very tender.

Mons. Liger advises to plant them in a place where the sun can

come at them, and to water them often: and says, you may know when they want it by the fading of the leaves.

Mr Bradley says, in disposing of Myrtles, or any other plants in the shade, you must do it so, that no other trees drop upon them, nor must they be confined in too close a place, but have a free air both round about them and above them, or else the shoots they make will be very slender and weak.

Mons. Liger says, Myrtles naturally require the use of the shears, and are to be clipt by art; and if by any accident any of the branches happen to wither, they are to be cut off to the quick.

Mr Bradley directs, that about the middle of April, such old trees as have been neglected and have thin heads, should be pruned about the roots, and have fresh earth put to them; and that the branches of their heads should be cut within three or four inches of the stem, and should be pruned about the roots; and that by this ordering, they will prepare to shoot by that time they come abroad; and if they have water and shade enough, will make handsome plants that summer.

Mr Bradley informs us, that Mr Whitmil shewed him some Myrtles that were inarched one upon another, and had taken very well; among these, they were the Striped Myrtle upon the plain; the Nutmeg Myrtle upon the upright; the Large-leaved kinds upon the small; and the Double-blossomed upon several sorts; which brought to his mind some thoughts he once had of making a pyramid of Myrtles, the base of which should be garnished with the Spanish Broad-leaved Myrtle, to be followed with the Nutmeg; and next to that the Silver-edged Myrtle, and upon that the Upright sort, to be succeeded by the Rosemary and Thyme-leaved kinds, upon which there might be a ball of the Double-blossomed Myrtle, which would make a fine appearance.

At Sir Nicholas Carew's, at Bedington, is a Myrtle of the Spanish Broad-leaved kind, which is above eighteen feet high, and spreads about fortyfive feet. Mr Bradley says, if to this are joined those Myrtles that he has seen growing in Devonshire, in the natural ground, he cannot see any occasion for any great use of fire for these sort of plants, as is common in greenhouses; but plants that are in pots are much more liable to suffer by the frost, than if they were in the naked ground; and the more woody the plants are, the more hardy they are.

Art. VII. — *Perpetual Roses.*

The following inquiries and remarks, from a lady in Portland, we cheerfully insert in the Register, hoping that her example will be followed by many others, who desire information respecting any plants, or their culture and management, promising in every case, to do what we can, to give light upon the subject desired. It would be pleasing to make the Register more social in its character than it has been heretofore; but this cannot be done, unless its patrons will bring their thoughts together, and let them mingle on its pages.

"Portland, April 24th, 1837.

"*Mr Breck* — Can you give any information respecting Perpetual Roses? Are they hardy? Have you any to dispose of? Are they the same as the Monthly Chinese Rose? We think they are not. If you were to answer these questions in the Register, many would be gratified, as we are quite ignorant touching their peculiar characteristics. I was amused at an article in the last Register, where a gentleman speaks of 'my caterpillars.' I should be rejoiced if he would call them all home, for they have troubled my garden for three years, and nearly destroyed the bushes.

"The love of flowers is rapidly increasing in this good city, as any one may perceive when passing along the streets. Even in the most unpromising situations, you often find a fine rose bush, or a few geraniums cherished by the family of the wealthy for their beauty, or occupying a sunny spot at the one small window of the poor.

"Among many small collections, we find one deserving particular notice. The plants are principally geraniums, and stand unrivalled for their profusion of flowers. Among them is a Washingtonian, which no doubt would command a premium at any exhibition, being a magnificent plant of great size, completely covered with its numerous clusters of splendid flowers. Many others are distinguished for their graceful forms, combined with delicate flowers, forming an assemblage of beauty which well repays the unremitting attention bestowed upon them by Mrs ——, a passionate lover of flowers. The successful efforts of this lady florist, will, I hope, lead many to devote their leisure hours to so pleasing a pursuit, and

thus cheat the winter of its dreariness. Many are deterred from indulging their taste through fear of expense, supposing a greenhouse indispensable: but here we see how much may be done with no additional expense; the plants forming the ornaments of the family drawing room, being familiar members of the household, breathing the same air, warmed by the same fire, and cheered by the same sun, richly repaying by their sweetness and beauty, all the care and affection bestowed upon them."

Remarks.—As to the Perpetual Rose, we would remark, that it has of late gained much celebrity, and many fine varieties have been produced; more than thirty of which are enumerated in a recent English catalogue. One of the most noted is Lee's Crimson Perpetual, considered very magnificent, and flowers in profusion from June to October. It is esteemed the finest of all garden roses; its fragrance is exquisite, and the plant highly valued.

The different species of the Rose have been so mixed by crossing or hybridizing, that it is rather difficult in many cases, to trace their origin with certainty, and we do not feel positive to what section the variety in question belongs. That it is not a China Rose is very certain, but we have reason to believe that they may be arranged under the *centifoliæ* and *gallicæ*, and that they are the offspring of some of the varieties of these two sections of the rose, which have been impregnated with pollen from some of the varieties of *spinosissima*, or the Scotch Rose.

As the parents of this variety are hardy, we should suppose, of course, that their offspring were the same; but, as it is frequently grown very luxuriantly by high cultivation, to produce the desired effect, it becomes a little subject to winter-kill without some protection. We are not positive, but believe our friends Winship and Kenrick can furnish plants of this desirable Rose.

The following remarks are from an English work: "They are, perhaps the most desirable of all the pleasing families of Rosa. Like their prototypes, they are highly fragrant, and, if possible, more so in September, October and November, than in June. As every shoot in most of the varieties produces bloom, the soil cannot be too rich; for with these, luxuriant growth will be sure to give abundance of flowers. A good practice would be, to cut off all the bloom buds in June, and shorten the shoots to about half their length, then water them with manured water in July and August.

This will make them shoot and bloom most luxuriantly all the autumn."

We should be glad to receive, from any of our correspondents, remarks upon the above subject. J. B.

ART VIII.—*Observations on the Flower Garden.* From Bridgman's Gardener's Assistant.

PREVIOUS to forming a flower garden, the ground should be made mellow and rich, by being well pulverized, manured, and prepared in every respect as if intended for a kitchen garden. A flower garden should be protected from cold cutting winds by close fences, or plantations of shrubs, forming a close compact hedge, which should be neatly trimmed every year. Generally speaking a flower garden should not be upon a large scale: the beds or borders should in no part of them be broader than the cultivator can reach, without treading on them: the shape and number of the beds must be determined by the size of the ground, and the taste of the person laying out the garden. Much of the beauty of a pleasure garden depends on the manner in which it is laid out: a great variety of figures may be indulged in for the flower beds: some choose oval or circular forms, others squares, triangles, hearts, diamonds, &c., intersected with winding gravel walks.

Neatness should be the prevailing characteristic of a flower garden, which should be so situated as to form an ornamental appendage to the house, and when circumstances will admit, placed before windows exposed to a southern or southeastern aspect. The principle on which it is laid out, ought to be that of exhibiting a variety of colors and forms so blended as to produce one beautiful whole. In a small flower garden, viewed from the windows of the house, this effect is best produced by beds or borders, formed on the side of each other, and parallel to the windows, from whence they are seen; as by that position, the colors show themselves to the best advantage. In a retired part of the garden, a rustic seat may be formed, over and around which honey-suckles, and other sweet and ornamental creepers and climbers, may be trained on trellises, so as to afford a pleasant retirement.

Although the greatest display is produced by a general flower garden, that is, by cultivating such a variety of sorts in one bed or border, as may insure a constant blooming; yet bulbous plants, while essential to the perfection of a flower garden, lose something of their peculiar beauty when not cultivated by themselves.

The extensive variety of bulbous roots, furnishes means for the formation of a garden, the beauty of which, arising from an intermixture of every variety of form and color, would well repay the trouble of cultivation, particularly as by a judicious selection and management, a succession of bloom may be kept up for some length of time. As, however, bulbous flowers lose their richest tints about the same time annuals begin to display their beauty, there can be no well founded objections to the latter, being transplanted into the bulbous beds with all the gaiety and splendor of the floral kingdom.

But the taste of the florist will be exercised to little purpose in his selection of flowers, if he does not pay strict attention to the general state of his garden. If there are lawns or grass walks, they should be frequently trimmed, and more frequently mowed and rolled, to prevent the grass from interfering with the flower-beds, and to give the whole a neat, regular, carpet-like appearance. If there are gravel walks, they should be frequently cleaned, replenished with fresh gravel, and rolled. Box, and other edgings, should be kept clear of weeds, and neatly trimmed every spring. Decayed plants should be removed, and replaced with vigorous ones from the nursery bed. Tall flowering plants must be supported by neat poles or rods; and all dead stalks and leaves from decayed flowers must be frequently removed.

In the summer season, all kinds of insects must be timely destroyed, and in evenings of warm days, the flowers will require watering.

"To raise your flowers, various arts combine,
Study these well, and fancy's flight decline;
If you would have a vivid, vigorous breed,
Of every kind, examine well the seed,
Learn to what elements your plants belong,
What is their constitution, weak or strong;
Be their physician, careful of their lives,
And see that every species daily thrives;
These love much air, these on much earth rely,
These without constant warmth, decay and die;
Supply the wants of each, and they will pay
For all your care through each succeeding day."

Art. IX.—*Double Flowering Peach Budded upon the Rose.*

We have received from a correspondent in South Carolina, a beautiful dried specimen of a twig of the double flowering Peach, with a number of its splendid flowers, said to be a part of the offspring of a bud upon a rose stock. Can this be? Possibly our friend has been misinformed. Did he see the Peach growing upon the rose himself, or was he told so by the person who gave him the specimen?

We have heard of budding the rose upon the black currant, to make a black rose — of budding it upon the barberry to make a yellow rose, and many other modes, equally in opposition to the analogical laws of vegetable nature; but we do not believe a union in such cases possible.

Botanists have brought the peach and the rose into the same natural family, but we are of opinion that the relationship does not come so near as to make them unite and flourish, although it may be possible that they may, for a short time, appear to thrive; yet the scion or bud must soon perish. It is so with the pear budded or engrafted upon the apple. We have known a pear scion live through one season upon the apple stock. It is well known that the pear will flourish on the quince, or the thorn even, but then in these cases the affiinity is much more close. We should be glad to learn from our correspondent, whether he has seen the plant in question, and how long the union has existed; and it would undoubtedly give our readers much pleasure to receive any botanical or horticultural information from the section of the country in which he resides.

J. B.

Art. X.—*Culture of the Peach.*

Wilmington, April 5th, 1837.

Gentlemen — I have cut the enclosed article from the Hamilton Intelligencer, and believing it highly important to the public, request its publication in your paper. I believe it is from the pen of Judge Milikin, of Butler county, Ohio.

He is a practising physician of age and much experience with regard to the subject on which he writes. I do not consider myself skilled in the science of horticulture, but from observation, have long known the existence of the facts, for which the writer gives us philosophical reasons in their support. B. HINKSON.

Peach Trees. — I frequently hear complaints through the country, that it has become almost impossible to cultivate the Peach tree. It is likewise remarked, that the fruit does not possess the same rich flavor that it did some years ago. I believe it to be a fact from my own observation, that we have no longer the pleasure of eating that delicious fruit, with all the fine flavors that it possessed in former times. There must be some natural cause for this failure. The climate has not changed. The sun has not ceased to shine. Rains and snows descend as formerly. Why then does the Peach tree not live, flourish and fructuate?

I have frequently heard it remarked, that the Peach tree would only do well in newly settled countries, where there was nothing but it and uncultivated fruits. The observation is correct in part, that it only does well in newly cultivated lands; but why the orchardist and farmer have not examined, or have not chemically inquired into the cause of the death of the tree and failure of its fruit, I know not. The only subject to investigate in this inquiry, is the situation the soil is in when the peach tree is thrifty and bears well, and the mode and manner of keeping the soil with the same constituent properties. We see that it is necessary that the sun should shine on the tree and fruit in order to give that flavor which we so much admire. If the tree is in the shade, we find that there is an excess of acid in the Peach which renders it unpalatable — abounding with a watery fluid. It therefore becomes necessary, that at least a part of the day's sun should shine on the tree and its fruits, to concentrate the fluids. Further, we find that there is but one kind of soil that the peach tree will live in, for the ordinary length of time they will live in *congenial soil*, that has been under cultivation any number of years (say twenty or upwards,) and that is a *reddish clay soil*, which holds a goodly portion of *iron* in solution. This fall I ate finely flavored peaches from trees that were more than twenty years old. The trees had been planted and raised in the above described soil. In all new cultivated lands, we know that there is going on continually a decomposition of vegetable

matter, say from the leaves that have fallen from time immemorial, rotten timber, and the decaying of the root and stumps, &c. Our next inquiry will be, what effects are we to expect from this decomposition? One is, we know, that about old buildings and rubbish of all kinds, the earth is always saturated with *saltpetre* or *nitre*, held in solution (as both names are applied to the same article.) The earth being measurably saturated with nitre, the tree is favored with a nitrous dew; for nitrous acid will abound where nitre is held in solution. There must, also, be what chemists call the "*Hydrogen Gas*," for they say that it has an active part to perform in the decomposing of vegetable substances, together with other gases. If it is a fact (and I believe no one will deny it,) that those gases are necessary to be in abundance, or that the atmosphere ought to be surcharged with them, for the preservation and active growth of the tree and its fruit more than for any other fruit tree, all we have to do to have our trees preserved to longevity, and have as rich, delicious fruit, as formerly, is to generate those gases which appear so essential. This may be done in the following manner: When we have trees planted in a grassy soil, we ought to denude the root of the tree by taking off the top soil for some distance around the tree (say one yard) so deep as to destroy the root of the grass; fill that vacancy with leaves, rotten logs, chips, or tanner's bark. The latter, I think, will answer, though I would prefer the chips, or rotten wood, to anything else, for they will not produce so much moisture as tan bark, and as the ground where grass grows is measurably deprived of its nitre, and is cold, the chips or rotten wood will generate nitre, warm the ground, destroy the gluten in the soil, and keep the earth from freezing, thereby preventing the trees being killed by the frosts of the hard winters. By doing this, you have the soil for your trees in nearly the same situation to nurture them, that the soil of new cleared land is in. When trees are young — recently planted, and no sward of grass around them, I am clearly of the opinion that the tan bark will answer all purposes; that by the time the tree grows to any size, the bark will be decomposed so as to furnish a sufficient quantity of nitre and gases to answer all purposes for the benefit of the trees. I would advise a renewal of the chips, wood or bark, as often as necessary, to keep the roots warm in the winter and to prevent the growth of grass, always putting it on over the preceding coat. I would also advise the

disuse of the pruning knife, after the transplanting of the trees. I would prefer letting them grow as nature directs, for whenever the bark is broken, a gum exudes from it, impoverishes its juices, and the tree then begins to decay. To prevent worms and other insects from getting about the roots of the trees, sprinkle sulphur around the body on the ground, and cover it with a small quantity of earth, to prevent the wind from blowing it away. This should be done in the month of April. The bodies of the trees may likewise be painted with sweet milk and sulphur, which will effectually destroy all insects that wound the bark. When caterpillars are troublesome to your fruit trees, take a panful of live coals, hold it under that part of the tree which they are upon, sprinkle sulphur or brimstone on the coals, and the fumes will entirely destroy them.

I have dropped a few hasty remarks — perhaps enough to induce some abler pen to do the subject justice. AGRICOLA.

ART. XI.—*Observations Relating to the Planting, Management and Culture of Fruit Trees and Plants.*

HAVING been frequently applied to by persons about to procure trees and plants from the Nursery, for instruction how to plant and manage them, and this happening often at a time when the pressure of business rendered it very inconvenient to give the information required; and as the success of planting trees depends much upon the treatment they receive after they leave the nursery till they have passed over the first summer,—I offer the following observations for the use of those who are about to plant, and have not had as much experience as myself:—

Seasons of Planting.—The delight peculiarly attached to spring in the conduct and management of our rural concerns, may seem naturally to have a strong influence in governing the mind of many, in making choice of the vernal season, it having become the season the most generally adopted for engaging in this interesting branch of improvement, while it is sufficiently evident, that the weight of experience will be found in favor of planting in the fall, especially in those parts of the country subject to severe droughts; as trees planted in autumn are less liable to suffer from this cause, than if planted in the spring.

When we consider how very short our spring is, we ought to plant our large trees and large shrubs in the fall, and open weather in winter; for the necessary vegetable and flower gardening, transplanting flowers, herbs, and other small articles, that would be in danger of being thrown out of ground, if transplanted in the fall by frost, will be as much as most people will be able to accomplish during our short spring. On this subject there is much truth in an assertion of that shrewd scientific writer, Wm. Cobbett, where I think he says in some of his writings, "a person in America would not think of there being any spring the winter being so soon succeeded by summer heat." Our autumns are mild and so pleasant as to be the admiration of European visitors, affording us the opportunity of planting from the 15th of October to hard frost, which seldom interrupts transplanting in this latitude before the 15th of December. But if other business should interrupt fall planting, large trees may very safely be planted in the spring from the 1st of March (sometimes earlier) to the 15th of April, and many small matters, and all the evergreen plants much later in the spring, it being much the best season to plant those last.

Arrival of the Trees at the place of their destination.— Immediately on the receipt of the trees from the nursery have the bundle carefully opened, and have a trench dug deep enough to receive the roots below the surface in a compact manner, with the bodies of the trees in a slanting position, then fill in some fine mould on and among the roots of the trees, and water them, both roots and mould, till all is very moist, and cover all up till preparations are made for planting, which ought to be done before the trees arrive — another excellent way to preserve trees is to plunge the bundles of trees, especially the roots, into water, where they will keep safely for a long time.

Method of Planting.—The holes for planting should be dug at least two and a half feet diameter, and about two spits or eighteen inches deep, casting around the lower spade full, and using only the top one for planting the trees, which, if insufficient, use the surrounding top soil, or other equally good or better, brought from elsewhere for the purpose; mixing any sort of manure when planting, is considered injurious, but may be usefully applied around the trees as a top dressing. Before planting, trim off the bruised parts of roots and trim the tops of trees freely, leaving them as light as possi-

ble, preserving merely the form of a head; shortening the branches, especially the leading shoot, is considered injurious.

Before the trees are set in the holes, shovel in some good mould, in order that the trees may not be planted more than two inches deeper than they stood in the nursery, and spread the roots of the trees equally around on the said mould; in filling up the hole, care should be taken to make the earth fine, in order that it may run in among the roots of the tree, which may be promoted by gently shaking the tree, as it is thrown in — water the roots well, then fill the hole up level with the surrounding ground, drive in a strong stake on the northwest side, and fasten the tree to it by a band of damp straw, passing it several times between and around the tree and stake, so as to keep it steady and prevent the wind from chafing it; in dry weather, during the first summer, the trees ought to be watered occasionally — once a week will be sufficient, if done plentifully, so as effectually to wet the whole space occupied by the roots; some half rotten litter spread around the tree during the summer, would be useful in preventing the rays of the sun and the wind from dissipating the moisture — but it should be removed in the fall, as it might be a harbor for mice during the winter, who would be apt to injure the trees by feeding on the bark and roots.

Robt. Sinclair.

Art. XII.—*On the Culture of Asparagus.* By A. Forsyth.

There is, perhaps, no article in the culture of which, more unnecessary forms are gone through than with this. We see the plant (a native of Britain) covered with 6 inches or perhaps 1 foot of soil or litter, in winter, to keep the frost from it or to mulch it when it is in a dormant state; though we may as well mulch a layer of seed potatoes at Michælmas, to benefit their buds for the succeeding summer.

But to come to the point, and that is, to cultivate asparagus to the highest state of perfection at the lowest charges. Let a heap of manure, equal to a layer of nine inches deep all over the ground intended for asparagus, be prepared of the following materials:— One third good loamy turf or turf of sandy peat; and two-thirds

of the best dung from the stable and cattle layers; with about two bushels of drill bones to every pole of ground. The turf ought to be pared off, and piled up, a year previous to its being wanted; and the dung properly mixed and fermented at least six weeks before. The bone manure may be spread over the rest before they are trenched into the quarter. In the process of trenching, let the manure be equally incorporated with every part. In planting, let one-year-old plants be inserted 1 in. below the level of the surface, in lines alternately 9 in. and 3 ft. apart, in the same way as peas are generally planted. If the plot be extensive, paths, 3 1-2 feet wide, may be run across the rows, at the distance of 16 ft. apart, to prevent wheeling, and, as much as possible, walking between the lines. The plants may be from 4 in. to 6 in. apart in the row, bedded and covered with leaf-soil, or dung reduced to a soil; and, as mulching with half-rotten dung, and extensive waterings in dry weather, are the principal features of culture, it is indispensably necessary that the ground be effectually drained, summer drought and winter saturation being the grand evils to be guarded against. From the latter end of May till Michælmas is the time that asparagus is generally left without any culture, except routine weeding, &c. Now, this is almost the only season that any culture can be of much service to the plant; for it is evident that, if we encourage the plants whilst they are in a state of active, development, that is, when they are shooting up to seed, by forking, frequent hoeing, mulching, and watering between the rows, as if flowers and seed were all we wanted, we shall invigorate the plants, and enable them to form fine plump crowns for next season: but I cannot see how banking the beds up with soil, or mulching them with strawy litter before winter (the roots being then in a state of rest,) can be of any great service to the plants. A short time before the buds appear in spring, a little fine soil may be drawn over the crowns, in order to blanch the lower halves of the buds.

In cutting, let the earth be first scraped away from the bud, that the gatherer may see where and what he is about to cut. Two or three years must elapse, after planting, before any buds can be profitably gathered for use; after which term, the lines may be allowed to remain until they become straggling and unproductive. In most gardens, however, they are generally wanted for forcing af-

ter six or seven years' bearing; in which case only a very slight hot-bed is necessary (say 80° bottom heat,) with 2 in. or 3 in. of any soil under and about the roots; and 5 in. or 6 in. of old tan, or any light soil, over them: atmospheric temperature about 55°.

Roots, placed between two layers of soil in pots or boxes, may be introduced into any early forcing house at work; or trenches may be cut between the lines in the open ground, and hot dung or leaves introduced under hoops and mats. Beds for forcing asparagus, with trenches between cased with brick-work, I consider as expensive and unprofitable.—*Gardener's Magazine.*

Art. XIII.—*Miscellaneous Articles.*

The Blight in Pear Trees.—A lady who read the notice of the premium offered by the Philadelphia Horticultural Society, sent us a message by her liege lord, a few days since, which we shall relate as near as we can in her own words, as narrated to us by the respected medium of communication.

"Some years since a female friend of her's who had had an estate sold under circumstances which were not agreeable, had a favorite pear tree, which bore fruit of exquisite excellence. Prior to giving up the place, she bored augur holes in it, with a view of killing it, having determined that those who had driven her from the home of her love, should not enjoy the luxury of her delicious pears; but much to her gratification, after her passion had cooled down, and philosophy came to her aid to soothe her injured feelings, she found that the tree outstript all others around it, in its luxuriant growth and fruitfulness."

The very means taken to destroy it, in the opinion of the lady, having imparted vigor and health to the tree, and hence she infers, that the same treatment might prove serviceable in cases of blight. We pretend not to determine either one way or the other; but would barely observe, that it is probable, that owing to some peculiar state of the atmosphere, a chemical operation might have been superinduced, and carried on through the medium of the augur holes, that conduced to invigorate the tree in question. We know, that if holes be made in a living tree, and either calomel or sulphur be inserted therein and confined by plugging, that these substances

are capable of being taken up by the general circulation, and diffused throughout the tree, and is it not equally possible, if not probable, that a similar effect could be produced through atmospheric agency! With these brief remarks, we shall leave the mooted question to be decided by those whose skill in such matters better qualify them for the task.—*Baltimore Farmer.*

The Dahlia.— As this is the season when this beautiful Mexican should be taken from its winter quarters and transplanted, we will remind our readers that, if they expect fine flowers, they must be liberal in manuring the places in which they deposite their roots. A moist, loamy soil, is the best adapted to their successful culture; but by filling up the hole around them with a fat compost, in which virgin mould, spent ashes and well rotted stable manure, are properly commingled, they may be raised any where, open to the sun and air. Care, however, must be taken to keep the plants well watered on every occurrence of dry weather; for stalks of such succulence, and luxuriant growth, are necesssarily deep drinkers, and must have their wants, artificially, if not naturally, supplied. And here let us remark, that those who desire to have them in their greatest perfection, should, most assuredly, give them a watering at least once a week with *soap suds*, the which, we hold to be to the vegetable kingdom, what milk is to the infant, the most wholesome aliment that can be prepared for it. While all who are particular in having choice flowers will, of course, plant the roots, none should despair of getting good ones from the seed. Last year, out of a comparatively small quantity of seed sown, we got seven *Double Dahlias*, of transcendant beauty, presenting in themselves a collection as varied as lovely in tint and hue.—*Baltimore Farmer.*

New Ornamental Tree.— Some of the eastern papers have announced the discovery of a new tree in our forests, which we think from the description must be a valuable addition to our already large class of ornamental evergreens. It has been proposed to call it *Pinus Tivertonensis*, from the place of its growth, which is in Tiverton, Rhode Island. It is a shrub or tree belonging to class xii. Monœcia; and is described as follows,—"Leaves solitary, flat, denticulate, nearly in rows, cones ovate, terminal, hardly longer than the leaves." It is a straight tree, remarkable for the hor-

izontal arrangement of its branches, and in these respects as well as in the position of its cones and leaf bears a resemblance to the *Pinus canadensis* of Bigelow. But what principally distinguishes it from other trees of the same species, is the beautiful red flowers which it is described as producing; these being of various sizes, from the dimensions of a large cup down to that of a dime. The outer leaves of the flower are a faint red, the inner ones a rich deep scarlet. The blossoms appear about the 25th of December, and it has sometimes been used at Christmas, forming a beautiful evergreen for the decoration of churches at that religious festival.

The occurrence of such instances of the discovery of new trees and plants even in the oldest settled parts of our country, shows that the labor of the scientific observer and botanist will not pass unrewarded; while the plants of the wide west offer a most inviting field for investigation, one which as yet, has hardly attracted the notice of science, or submitted its rich stores to the examination of the enquiring and the curious. It is possible some farmer may be disposed to speak lightly of the pursuits of the naturalist, and his investigations; but before he does so, let him remember the debt he owes him in the discovery and introduction to culture, we may almost say the civilization, of nearly all the grains, grapes, and roots, that form so large a part of human subsistence, and add so greatly to the comfort and happiness of our race.—*Genesee Farmer.*

On Pruning Fruit Trees.— My time for pruning and method of doing it are as follows: any time between the 20th of May and the 10th of June, is the season which I prefer, as the sap is in motion, and the wound will heal over in one half the time of any other season; the tree is also less liable to sucker. In amputating large limbs, I use a fine saw, paring the edge of the wound with a sharp knife, but for small limbs a hatchet, or pruning hook may be used, endeavoring by all means to amputate the limbs as near the body of the tree as possible.— Where the saw is used it would be better to have the surface smoothed by some sharp instrument, in order to prevent the water from remaining on the wound long.— *Farmer's Cabinet.*

Grafting.—A great many different modes of grafting are practised, and minute directions are given in books on gardening for

performing this work. The young beginner is generally more bewildered than instructed by the multiplicity of these directions, unless he understands the *rationale*. By reducing the operation in all its modifications to its first principles, it will become greatly simplified, and the necessary particulars for success at once understood.

In order to cause an adhesion between the graft and stock, it is requisite, first, that the sap which flows upwards through the wood, should be able to pass uninterrupted at the place of their junction. *Hence the parts of both must be cut so as to be placed in close contact.* Secondly, it is necessary that the juices, in returning through the liber, (or inner portion of the bark) should pass uninterrupted from the graft to the stock. *Hence these parts also must be placed exactly in contact.* Thirdly, it is necessary that the newly formed woody fibres which descend from the buds of the graft, and which serve to connect the two parts together should pass freely from one part to the other; and also that the *cambium* or soft substance between the bark and the wood, which serves as food for these young descending fibres, should be continued at this point of junction. *Hence the line of separation between the bark and the wood, should, both in stock and graft, be accurately adjusted.* On the accuracy with which these three parts of the operation are performed, the success mainly depends. And if these are attended to, it is immaterial how great a variety of modes are adopted. The most inexperienced and unskilful hand, if care is taken in these particulars, could scarcely fail.—*Genesee Farmer.*

Horticultural Society.—A general meeting of the subscribers to the Horticultural Society, was held on Tuesday last, the 4th inst. The Hon. T. N. Jeffrey, President, in the Chair, supported by the two Vice Presidents, the Hon. C. R. Prescott and the Hon. Joseph Allison.

The Proceedings of the last general meeting having been read, the President informed the meeting, that the bill petitioned for by the Society, had passed the Legislature; that it now became necessary to pay for the ground. A subscription was immediately entered into — the President Mr Jeffrey subscribing £10, and the two Vice Presidents, Mr Prescott and Mr Allison £5 each. This being the first general meeting of the year, the President, Vice Presidents, Secretary, Treasurer and Committee, were all unanimously re-elected,

and Mr James Tremain and Mr Andrew Richardson, added to the Committee. The general meeting request, the Committee will take the necessary steps to decide upon the days for the competition meetings, and the prizes to be awarded; and also to adopt such other measures, as may be for the advancement of the Institution. After the proceedings of the meeting had ended, Mr Hewson, a practical gardener, residing in the neighborhood, read a short lecture on Flowers, with which the meeting were much gratified.—*Novascotian.*

Influence of Exposure.—Many cultivators of fruit have very unphilosophical notions respecting the exposure most favorable to its escape from the destruction of the late frosts incident to our northern climate. They suppose northerly and westerly winds are colder than those of contrary directions, and consequently the cause of the late frosts in the spring, which destroy the fruit, especially peaches. Hence, they select locations protected from the current of these winds, as the only security against their supposed injurious effects. They do this from the mistaken opinion that they are the cause of the destruction of the fruit, because they are the cause of the frost by which it is destroyed; while in fact they are the only preventives of such destruction, which nature has provided in the whole arrangement of her economy.

It is true, these frosts are dew in a state of congelation, produced in part by the action of these winds; but it is also true that, at the same time, they give the tender buds the best protection they can have against their fatal effect. This they afford, either by preventing an unseasonable development of the fruit bud, or securing it against the injurious effects of unseasonable frosts. In locations sheltered from these winds and exposed to the direct rays of the sun, the season is several days in advance of those exposed to the former and secluded from the latter, and consequently the development of the bud is premature. Hence we see peach and other fruit trees in full bloom on the southern and eastern sides of a hill, while those on the northern and western have not commenced unfolding their blossoms.

If therefore, while both are in these conditions, they are visited by a frost, it is manifest the former will be destroyed, and the latter remain uninjured. But if both are in the same degree of forward-

ness, it is equally manifest that those exposed to the northerly and westerly winds will be most likely to escape the destruction of the frost, of which it is true they may be a principal cause. If these frosts are merely frozen dew, it follows that those fruit buds will be most injured by them which are most copiously loaded with it. The only security, then, is preventing the dew from remaining upon them — and this is most effectually done by having them exposed to the strong current of northerly and westerly winds. This sweeps the dew from them as fast as it falls and prevents their freezing; while on those sheltered from it the dew remains, the buds are frozen and the fruit is inevitably destroyed.

The same effect is discoverable, though in a less degree, in orchards on plains, both on hills and in valleys. The fruit on trees in the interior is often destroyed by late frosts, while that on those on the borders escapes and grows to maturity and perfection. This phenomenon may be accounted for on the same principle — the winds sweep the dews from the trees on the borders, while on those in the middle of the orchard it remains and is frozen.

The most favorable location, therefore, for fruit trees in this climate, is the northern and western sides of a declivity, and the more open and exposed to the wind the better. In milder climates, where the advance of the season is not interrupted by late frosts, this reasoning does not apply, and consequently locations more favorable may be selected. But in New England, where these frosts are not unfrequent, the cultivator of fruit must be governed by it, or he will occasionally be subjected to the loss consequent upon the failure of his crop.—*Silk Culturist.*

To raise forward Potatoes.—It is said in the New England Farmer, that potatoes exposed to a warm sun a few days before planting, will be a week more forward than those planted in a common way. As the experiment will cost but little trouble, we think it worth the trial, and would suggest to those who make it, to favor us with the result of their respective experiments, as all such things tend to add to the sum of agricultural knowledge; and to inspire an *esprit du corps*, highly promotive to the general interests of husbandmen.— *Farmer and Gardener.*

Art. XIV.—*Obituary Notice.*

Died, in London, on the 24th of January, 1837, *J. Sabine*, Esq. late Secretary of the London Horticultural Society: he was in the sixtyseventh year of his age, and his death is universally regretted. The following brief sketch of his connection with the Horticultural Society, and his separation from the same, we extract from a memoir of Mr Sabine, in the Horticultural Journal.

"Mr Sabine was a man so well known among gardeners, as well as in all the higher circles of society, that we need scarcely describe his habits or his person, and few people in his sphere of life have been more regretted. The two societies which seem to have enlisted among their members all the loose turbulent spirits in the metropolis, the Horticultural and the Zoological, were, notwithstanding all that has been said and written, under obligations which they could never have repaid; but while respected by all whose respect is desirable, Mr Sabine had the honor of being opposed by some, who envied him the station which he held in the estimation of the public, and sought, by means which we have seen defeated, to deprive him of the honors he had earned in the offices he filled. We who enjoyed the confidence and friendship of the deceased, have not unfrequently observed the contrast between the office of honorary secretary of the Horticultural Society, as filled in his time, and occupied now; and though we can find twenty errors committed by the former, the office, with all its errors, was respected. The chief fault in Mr Sabine was, that of paying too much attention to promises, and relying too much on public professions. Had one half the wealthy people who encouraged his proceedings on the gardens of the society kept their words, and given the liberal assistance they promised, the society would not have been disgraced by exposure, nor degraded by the change of management. Mr Sabine's notion of the Horticultural Society of London was, that its gardens should be the best of the kind, and the collections worthy of such a national repository. It was his misfortune that those who admired his plan and prompted his proceedings, were the last to follow up the good work, by producing the requisite funds; and the personal opposition so industriously got up against him, and even attempted to be planted in the Zoological Society, by a few unprincipled busy-bodies, arose

from the natural enmity of the vain pretenders, who envied him the natural influence which talent and integrity gave him over almost all the classes. When the Dean of Carlisle was in the chair at the Zoological Society, in March, 1830, a lout of this description, a Mr Valentine Duke, make a violent attack on Mr Sabine, which the Rev. Chairman was about to repel, when Lord Auckland gave the flippant blockhead a set down, which spoiled his oratory for some time; for his lordship, after extinguishing the gentleman's light, paid the highest compliment to the good sense, the zeal and attention which Mr Sabine had shown to the institution, and hoped he would continue there. Yet those proceedings did not appear to ruffle Mr Sabine's mind in the least. In the same month the famed committee of inquiry into the affairs of the Horticultural Society made its report; and a Mr Kerr, who liked much to hear himself talk, tauntingly accused Mr Sabine of being secretary, president, council, and gardener of the society, and moved a vote of censure upon him the moment the report had announced his resignation; and as dirty business can be done best in the dark, it was proposed to vote it by ballot. It was on that occasion that an excellent man, Sir Thomas Acland, said, *the society ought to take into account some of the good he had done.* The meeting spurned the unmanly proposal, and the motion was altogether withdrawn. Mr Sabine's errors in the society were errors only because they were not carried out; and whatever people may say of that mountebank concern now, with Lindley dancing the tight rope, Dr Henderson playing clown, Mr Gower pantaloon, and the two ladies performing columbine, one fact is certain, either that the Horticultural Society ought to have been carried through upon the liberal scale on which it was planned, or it ought not to have been continued at all; and hundreds of the present members regret that so far as all the real purposes of the society — the collecting of exotics — are concerned, it has been useless the last three or four years. Since Mr Sabine resigned his office in the Horticultural Society, he has devoted much time to the gardens of the Zoological Society, where the dahlia is cultivated in greater variety than in any public or private garden. Indeed, to this flower had Mr Sabine become so entirely devoted of late, that he spared no means to learn the origin of every kind, where and by whom it was raised and named, and, if he could, from what seed it came. Among numerous letters and papers in our possession, we

shall have ample opportunities of illustrating this desire to ascertain the history of every individual variety. Soon after Mr Sabine's resignation as honorary secretary of the Horticultural Society, Mr Burke, (seeing, we suppose, that Mr Sabine had the superintendence of the Zoological Farm at Kingston,) moved that it be given up. On that occasion, Mr Sabine defended its continuance very earnestly, and silenced all remarks about being interested, by showing he had expended a hundred and fifty pounds of his own money, because he would receive no reimbursements; and though very well planned and arranged on the part of the malcontents, an amendment for the continuance of the farm was carried by a majority of *nine*. At the last annual meeting of the Zoological Society, Mr Sabine was one of the council who went out of office by rotation, and he took considerable interest in the election, on account of the opposition list, got up among the well trained enemies to the council. After a good deal of barking on that day, the result of the ballot placed the busy-bodies in such a fragment of a minority, that any idea of commanding the respect or support of a majority in future, must be bordering on the insane. Indeed, poor Sabine knew every movement of his mole-like adversaries. The ramifications from Regent street — Dr Henderson's industrious perambulations — the honorary secretary's cogitations — and all the secret machinery of the little agitating knot of worthies, were as well understood as if they had all taken place in open daylight, and were as effectually defeated. Upon the whole, few lived more respected by scientific men, or more envied by pretenders; few have died who were more missed in the particular circles that they have moved in. For our own part, we shall not, for some time, attend a floral exhibition without recalling him forcibly to our mind; and as many young gardeners owe much to his kindess of heart, so many have lost the benefit of his influence. Mr Sabine had many marks of distinction on account of his valuable services; the following, in particular, from the Horticultural Society:

'To Joseph Sabine, Esq. the Honorary Secretary, the Gold Medal, as a token of the high sense entertained by the Society of the very great assiduity and intelligence manifested by him, as well in the formation of the by-laws as in the arranging and settling the long and very intricate accounts of the Society. *June* 4, 1816.'"

QUINCY MARKET.

(Reported for the Horticultural Register.)

APPLES, Baldwins	barrel	2 00	2 25
Greenings,	"	2 00	2 25
Russetts,	"	2 00	
Bell flowers	"	2 50	
PEARS, Iron,	bushel	3 00	
CATHARINE,	"	3 00	
CRANBERRIES,	"	8 00	8 50
CHESNUTS,	"	3 00	3 50
CUCUMBERS,	a piece	75	1 00
CAULIFLOWERS,	head	37	75
CELERY, White Solid, and Rose Colored,	root	12	25
CABBAGE, Red Dutch,	dozen	50	62
Green Globe Savoy,	"	62	75
Large Drumhead,	"	50	75
HORSE RADISH,	pound	10	12
RADISHES, Early,	bunch	12	
Turnip Rooted,	"	12	17
LETTUCE ROSE or Tennisball,	head	6	8
POTATOES, Chenangoes,	bushel	75	1 00
Eastport,	"	75	1 00
St Helena,	"	1 00	1 25
DANDELIONS,	½ peck	75	
SQUASHES, Crook neck,	pound	9	10
Valparaiso,	"	5	6
SHAGBARKS,	barrel	4 00	4 25
ONIONS, White Portugal,	bushel	1 00	1 25
Red,	"	1 00	1 25
Bunch Onions,	hundred	4 00	4 25
PICKLED CUCUMBERS,	gallon	31	37
DRIED APPLES,	pound	4	5
LONG BLOOD BEETS,	bushel	1 00	
PARSNIPS, Large Dutch,	"	75	1 00
TURNIPS, White Flat	"	50	
Ruta Baga	"	50	
Long Yellow French,	"	50	

There has been little change in the market during the past month. The pressure of the times, affects even the operations of their business, so the marketers say. Lettuce, Radishes, Parsley, and Spinach come in very well. Cucumbers have made their appearance. We have seen some noble ones, raised by Mr Thomas Willott, of Roxbury, the Johnson Early Frame. They sold readily for $1 00 each. At Mr Staples' Stall was one this week measuring 15 inches in length, which was sold to a New Yorker, for ONE DOLLAR.

Boston, April 30, 1837.